#### LEVEL OF FAA INVOLVMENT IN SOFTWARE PROJECTS

#### FAA SOFTWARE STANDARDIZATION CONFERENCE

SEATTLE, WA

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## Level of FAA Involvement (LOFI)

- Outlined in Notice N8110.xx, "Guidelines for Determining the Level of Federal Aviation Administration (FAA) Involvement in Software Projects"
- Identifies how much the FAA is involved in a software project
  - Number & type of reviews
  - Amount of data submittals
  - Amount of delegation

#### Notice 8110.xx Outline

- Section 1—Purpose
- Section 2—Distribution
- Section 3—Related Publications
- Section 4—Background
- Section 5—Discussion
- <u>Section 6</u>—Procedures
- <u>Section 7</u>—Special Considerations
- <u>Section 8</u>—Conclusion

#### Section 1—Purpose

- Provides guidelines for determining level of FAA involvement in software projects
- Applies to TC,STC, ASTC, ATC, and TSO projects that contain airborne software.

#### Section 4—Background

- DO-178B Sections 9.2 and 10.3 address certification liaison process
- Notice 8110.81 addresses software review process
- Notice 8110.xx address the following aspects of FAA's involvement:
  - when to be involved
  - extent of involvement
  - areas of involvement

#### Section 5—Discussion

- Three levels of involvement: High, Medium, and Low
- Use software level as a starting point (Table 1):

Level	<u>LOFI</u>
D	LOW
C	LOW or MEDIUM
$\mathbf{B}$	<b>MEDIUM or HIGH</b>
A	MEDIUM or HIGH

#### Section 5—Discussion (Cont'd)

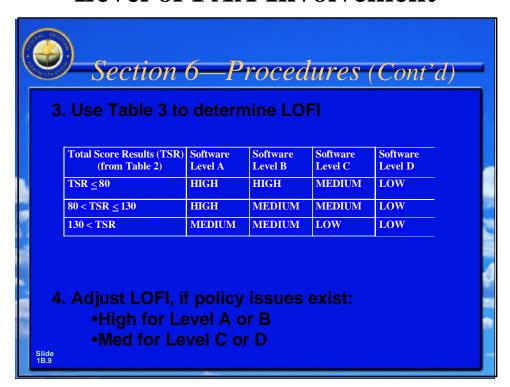
- For ambiguities, use Table 2 of 8110.xx (See attachment # 8)
- Exception to Table 2 is projects with policy issues

#### Section 6—Procedures

- Perform LOFI assessment at beginning of project using the following steps:
  - 1. Look at Software Level
  - 2. If ambiguities exist, complete Table 2.

Note: Table 2 may be completed by

- ACO engineer familiar with the company, with input from ASI,
- Designee,
- Applicant, and/or
- Software Developer



#### Section 6—Procedures (Cont'd)

- 5. Document the LOFI assessment
- See Appendix B through D for examples of High, Medium, and Low
- See Appendix A for LOFI worksheet
- 6. Keep the worksheet up-to-date throughout the project

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# Section 7—Special Considerations

- Consider overall system criticality
- For TSO projects instead of DERs, evaluate their personnel responsible for software oversight
- Late submittals could result in intense involvement late in the program
- Mid-course corrections are encouraged
- LOFI reports may be used to assess FAA staffing needs

### Examples

- Appendix A, B, C, and D contain examples
- Analyze Examples

### Summary of 8110.xx

- Criteria and guidance are useful for prioritizing efforts given limited resources
- Key to be flexible when applying guidance
- There are no solid boundaries between levels of involvement
- Poor planning on the part of the applicant does not warrant panic on our part

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